

# NOMENCLATURE CHANGES IN THE ALASKAN FLORA

Stanley L. Welsh<sup>1</sup>

Floristics revisions generally lead to adjustments in nomenclature and to the description of previously undescribed entities. This is the case with the revision of the Alaskan flora also. The necessity for changes of nomenclature is a result of increased knowledge about entities, the examination of additional or unusual specimens, the filling in of gaps in distributional records, and differences in point of view on what constitutes a taxon and on what level it should be recognized. All nomenclatural changes have been checked against the most modern treatments for the groups in which they belong and against standard indices of botanical literature.

Specimens on which new entities are based are deposited in herbaria designated by standardized international code letters.

The conclusions presented here represent the results of four years of intensive study of Alaskan flora. That some of the interpretations might be in error is hereby granted, and for the errors the writer herewith submits his apologies. Hopefully, the changes reported here will lead to a more stable nomenclature and to better understanding of a vastly interesting flora. Justification for the conclusions reached here will be more readily apparent when the proposed revision of *Anderson's Flora of Alaska* appears in print.

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## BORAGINACEAE

*Mertensia maritima* (L.) S. F. Gray var. *asiatica* (Takeda) Welsh stat. nov. (based on: *Mertensia maritima* ssp. *asiatica* Takeda Jour. Bot. 49:222. 1911)

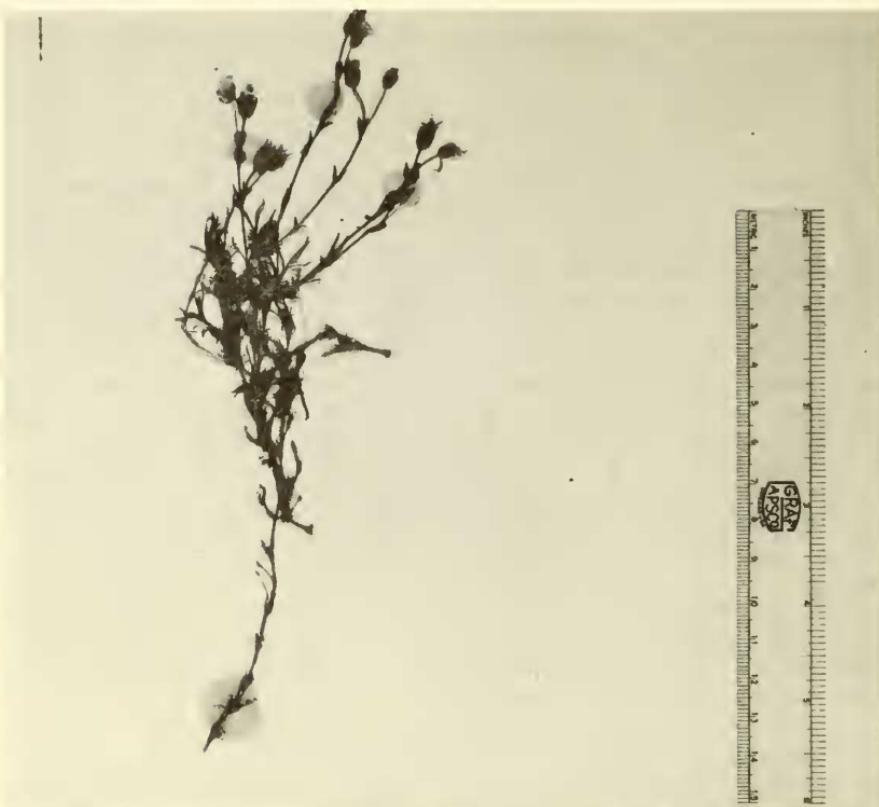
*Mertensia paniculata* (Ait.) G. Don ssp. *eastwoodiae* (Macbr.) Welsh stat. nov. (based on: *Mertensia eastwoodiae* Macbr. Contr. Gray Herb. n. s. 49:18. 1917)

## CARYOPHYLLACEAE

*Arenaria laricifolia* L. var. *hultenii* Welsh var. nov.

*Planta similis* var. *laricifolia*, *differens in folia obtusa, linearia ad anguste oblonga, pleurumque uninervis et glabra vel tantum ciliata*. ALASKA: Takotna, Anderson & Gasser 7398, 24 July 1941 (ISC, holotype; BRY, isotype). Additional specimens from Alaska: Unalakleet, Anderson 5088, 29 August 1938 (ISC, BRY); Takotna Mt., R. L. Layden 167, 9 July 1948 (ISC); Mt. Fairplay, Anderson

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ISOTYPE

## FLORA OF ALASKA

*Arenaria laricifolia* L. var. *hultenii* Welsh

Habitat Alpine

Locality Takotna  
Date 4 July 1941  
No. 7398J. P. Anderson &  
G. W. Gasser  
Collected by \_\_\_\_\_

Stanley L. Welsh

Figure 1. Isotype of *Arenaria laricifolia* L. var. *hultenii* Welsh var. nov.

10810. 22 July 1948 (ISC); Mt. McKinley National Park, Nelson & Nelson 3898, 21 July 1939 (ISC); Golovin, Anderson 5038. 27 August 1938 (ISC). This variety is named in honor of Eric Hultén, distinguished student of Alaskan botany.

*Arenaria rossii* R. Br. ex Richards. var. *elegans* (Cham. & Schlecht.)  
Welsh stat. nov. (based on: *Arenaria elegans* Cham. & Schlecht.  
*Linnaea* 1:57. 1826)

*Cerastium beeringianum* Cham. & Schlecht. var. *aleuticum* (Hultén)  
Welsh comb. nov. (based on: *Cerastium aleuticum* Hultén  
Svensk. Bot. Tidskr. 30:520. 1936)

## CHENOPodiaceae

*Atriplex patula* L. var. *alaskensis* (Wats.) Welsh stat. nov. (based on: *Atriplex alaskensis* Wats. Proc. Am. Acad. 9:108. 1874)

## COMPOSITAE

*Antennaria alpina* (L.) Gaertn. var. *stolonifera* (Porsild) Welsh comb. nov. (based on: *Antennaria stolonifera* Porsild Can. Field-Nat. 64:16. 1950)

*Antennaria alpina* (L.) Gaertn. var. *megacephala* (Fern.) Welsh comb. nov. (based on: *Antennaria megacephala* Fern. ex Raup Contr. Arnold. Arb. 6:208. 1943)

*Antennaria alpina* (L.) Gaertn. var. *compacta* (Malte) Welsh comb. nov. (based on: *Antennaria compacta* Malte Rhodora 36:111. 1934)

*Arnica alpina* (L.) Olin var. *lonchophylla* (Greene) Welsh comb. nov. (based on: *Arnica lonchophylla* Greene Pittonia 4:164. 1900)

*Arnica amplexicaulis* Nutt. var. *prima* (Maguire) Welsh stat. nov. (based on: *Arnica amplexicaulis* ssp. *prima* Maguire Madroño 6:154. 1942)

*Arnica chamissonis* Less. var. *incana* (Gray) Welsh stat. nov. (based on: *Arnica foliosa* var. *incana* Gray Am. Nat. 8:213. 1874)

*Arnica louiseana* Farr. var. *frigida* (Meyer ex Iljin) Welsh stat. nov. (based on: *Arnica frigida* Meyer ex Iljin Trav. Mus. Bot. Acad. U. R. S. S. 19:112. 1926)

*Artemisia campestris* L. ssp. *borealis* (Pallas) H. & C. var. *canadensis* (Michx.) Welsh comb. nov. (based on: *Artemisia canadensis* Michx. Fl. Bor. Am. 2:128. 1803)

*Artemisia campestris* L. ssp. *borealis* (Pallas) H. & C. var. *strutzae* Welsh var. nov.

*A var. borealis differt foliis dense pilosis et inflorescentiis subpaniculatis vel paniculatis.* ALASKA: Roadside, ca. 2 miles east of Potter, near mile 112 Seward Highway, Welsh 4524, 7 July 1965, (BRY, holotype; ISC, isotype). Additional specimens from Alaska: Cliffs along Turnagain Arm, along Highway 1, 25 miles south of Anchorage, Welsh 4115, 14 June 1965 (BRY, ISC); Glenn Highway, ca. mile 112, near Sheep Mountain, Strutz 44, 18 June 1953 (BRY); Seward Highway, mile 105, Strutz 1967-1 (BRY); Seward Highway, mile 108.5, do 1967-2 (BRY); Seward Highway, mile 113, do 1967-3 (BRY); Seward Highway, mile 113, do 1967-4a, 1967-4b (BRY); Seward Highway, mile 115, do 1967-5 (BRY), all 20 August 1967; Seward Highway, mile 16, Williams 1566, 22 June 1966 (BRY). This variety is named in honor of Mrs. Aline Strutz, botanical enthusiast, collector, and Alaskan pioneer.

*Artemisia frigida* L. var. *williamsae* Welsh var. nov.



Figure 2. Holotype of *Artemisia campestris* L. ssp. *borealis* (Pallas) H. & C. var. *strutzae* Welsh var. nov.

*A var. frigida* differt receptaculis glabris vel glabratis et capitulis saepe supra 5 mm. latis. YUKON TERRITORY: Alaska Highway, mile 1070, at Kluane Lake, on lakeshore gravel, Williams 1369, 31 July 1965 (BRY, holotype). Additional specimens: YUKON TERRITORY: Along Alaska Highway, at Duke River, Williams 1888, 26 July 1966 (BRY). ALASKA: Glenn Highway, mile 113, Strutz 45, 18 June 1953 (BRY, ISC). This variety is named in honor of Mrs.



Figure 3. Holotype of *Artemisia frigida* L. var. *williamsae* Welsh var. nov.

Maxine Morgan Williams, long-time Alaskan resident and botanical collector.

*Artemisia norvegica* Fries var. *comata* (Rydb.) Welsh comb. nov.  
(based on: *Artemisia comata* Rydb. N. Am. Fl. 34:263. 1916)

*Artemisia tilesii* Ledeb. var. *aleutica* (Hultén) Welsh comb. nov.  
(based on: *Artemisia unalaskensis* var. *aleutica* Hultén Fl. Aleutian Isl. 327. 1937)

*Saussurea angustifolia* (Willd.) DC. var. *viscida* (Hultén) Welsh comb. nov. (based on: *Saussurea viscida* Hultén Lunds Univ. Arssk. N. F. Avd. 2. 46:1627. 1950)

*Tanacetum bipinnatum* (L.) Schultz-Bip. ssp. *huronense* (Nutt.) Welsh stat. nov. (based on: *Tanacetum huronense* Nutt. Gen. 2:141. 1818)

#### CRUCIFERAE

*Cochlearia officinalis* L. var. *sessilifolia* (Rollins) Welsh stat. nov. (based on: *Cochlearia sessilifolia* Rollins Contr. Dudley Herb. 3: 182. p. 46, fig. 1. 1941)

*Draba borealis* DC. var. *maxima* (Hultén) Welsh comb. nov. (based on: *Draba maxima* Hultén Lunds Univ. Arssk. N. F. Avd. 2. 41:859. 1944)

*Erysimum asperum* (Nutt.) DC. var. *angustatum* (Rydb.) Welsh comb. nov. (based on: *Erysimum angustatum* Rydb. Bull. N. Y. Bot. Gard. 2:171. 1901)

*Rorippa islandica* (Oed.) Borbas var. *barbaraefolia* (DC.) Welsh comb. nov. (based on: *Camelina barbaraefolia* DC. Syst. Nat. 2:517. 1821)

#### GENTIANACEAE

*Gentianella propinqua* (Richards.) Gillett var. *aleutica* (Cham. & Schlecht.) Welsh stat. nov. (based on: *Gentiana aleutica* Cham. & Schlecht. Linnaea 1:175. 1826)

#### LEGUMINOSAE

*Hedysarum boreale* Nutt. ssp. *mackenzii* (Richards.) Welsh stat. nov. (based on: *Hedysarum mackenzii* Richards. Bot. Append. Frankl. Journ. 745. 1823)

*Oxytropis arctica* R. Br. var. *barnebyana* Welsh var. nov.

*Herba perennis acaulescens, caudices multi vel pauci-ramosus, ramuli brevis; folia pinnatis, 6-15 cm. longis; foliola 9-15, oblongis vel lanceolatis oppositis vel alternis, 4-15 mm. longis, 2-5 mm. latis, obtusis vel acutis, aliquantum pilosis supra et infra; stipulae et petioli adnatis; scapi foliis longior, 5- ad 8-floribus; corollae albus, apicibus carinis purpureo-maculatis, 18-22 mm. longis; legumina adscendens, substipitatis, biloculis, 18-25 mm. longis.*

Acaulescent perennial herbs from a branching caudex; leaves pinnate, 6-15 cm. long, the leaflets 9-15, oblong to lanceolate, opposite or alternate, not fasciculate, 4-15 mm. long, 2-5 mm. broad, obtuse to acute, somewhat pilose on both surfaces; stipules adnate to the petioles, 10-25 mm. long, the free ends acuminate, 7-12 mm. long, pilose dorsally, becoming glabrate in age, ciliate and beset with clavate marginal processes; scapes 9-15 (20) cm. long; rachis of raceme 0.5-4.5 cm. long; flowers white, fading cream or yellowish, the keel-tip maculate; calyx cylindric, villous with light and dark



Figure 4. Holotype of *Oxytropis arctica* R. Br. var. *barnebyana* Welsh var. nov.

in mixed *Salix* heath, Welsh 5729, 9 July 1966 (BRY, holotype; ISC, NY, US, ALA, isotypes). Additional specimens: Kotzebue, Welsh 5758, 10 July 1966 (BRY, ISC); do, Anderson 4740b, 12 August 1938 (ISC); do, Strutz 432, 26 June 1963 (BRY); do, Strutz 1021, 9 July 1966 (BRY); do, Welsh 5841, 13 July 1966; Sadlerochit R. Spetzman 950, 30 July 1948 (BRY, mixed collection). This variety is abundant near Kotzebue. It is named in honor of Rupert C. Barneby, monographer of North American *Oxytropis*.

R., Spetzman 950, 30 July 1948 (BRY, mixed collection). This variety is abundant near Kotzebue. It is named in honor of Rupert C. Barneby, monographer of North American *Oxytropis*.

## ONAGRACEAE

*Epilobium alpinum* L. var. *sertulatum* (Hausskn.) Welsh comb. nov.  
(based on: *Epilobium sertulatum* Hausskn. Österr. Bot. Zeits. 29:52. 1879)

*Epilobium alpinum* L. var. *behringianum* (Hausskn.) Welsh comb. nov.  
(based on: *Epilobium behringianum* Hausskn. Mon. Epil. 277. 1884)

*Epilobium palustre* L. var. *davuricum* (Fisch. ex Hornem.) Welsh comb. nov.  
(based on: *Epilobium davuricum* Fisch. ex Hornem. Hort. Hafn. Suppl. 44. 1819)

## POLEMONIACEAE

*Phlox sibirica* L. var. *alaskana* (Jordal) Welsh stat. nov. (based on:  
*Phlox alaskana* Jordal Rhodora 54:38. 1952)

*Phlox sibirica* L. var. *borealis* (Wherry) Welsh comb. nov. (based  
on: *Phlox borealis* Wherry Morris Arboretum Monog. 3:126.  
1955)

*Phlox sibirica* L. var. *richardsonii* (Hook.) Welsh comb. nov. (based  
on: *Phlox richardsonii* Hook. Fl. Bor. Am. 2:73. tab. CLX. 1840)

## POLYGONACEAE

*Polygonum alpinum* All. ssp. *alaskanum* (Small) Welsh stat. nov.  
(based on: *Polygonum alpinum* All. var. *alaskanum* Small  
Monog. 33. 1895)

## PORTULACACEAE

*Montia bostockii* (Porsild) Welsh comb. nov. (based on: *Claytonia*  
*bostockii* Porsild Bull. Nat. Mus. Can. 121: 160. 1951)

*Montia scamaniana* (Hultén) Welsh comb. nov. (based on: *Clay-*  
*tonia scamaniana* Hultén Bot. Nat. 1939:826. 1939)

## PRIMULACEAE

*Dodocatheon pulchellum* (Raf.) Merrill var. *alaskanum* (Hultén)  
Welsh stat. nov. (based on: *Dodocatheon macrocarpum* var.  
*alaskanum* Hultén Lunds Univ. Arssk. N. F. Avd. 2. 44:1289.  
1948)

## RANUNCULACEAE

*Aconitum delphinifolium* DC. var. *paradoxum* (Reichb.) Welsh stat.  
nov. (based on: *Aconitum paradoxum* Reichb. Monogr. Gen.  
Aconit. 76. tab. 10, fig. 3-5. 1820)

*Anemone narcissiflora* L. var. *vilosissima* (DC.) Welsh stat. nov.  
 (based on: *Anemone narcissiflora villosissima* DC. Prodr. 1:22.  
 1824)

## ROSACEAE

X *Geum macranthum* (Kearney ex Rydb.) Welsh hybrid nov. (based  
 on: *Sieversia macrantha* Kearney ex Rydb. N. Am. Fl. 22:412.  
 1913)

## SAXIFRAGACEAE

*Saxifraga davurica* Willd. var. *grandipetala* (Engler & Irmscher)  
 Welsh stat. nov. (based on: *Saxifraga davurica* Willd. fma.  
*grandipetala* Engler & Irmscher ex Engler Pflanzenreich IV.  
 117 (heft 67): 22. 1916)

*Saxifraga punctata* L. var. *insularis* (Hultén) Welsh stat. nov. (based  
 on: *Saxifraga punctata* ssp. *insularis* Hultén Svensk. Bot. Tidskr.  
 30:524. 1936)

*Saxifraga punctata* L. var. *porsildiana* (Calder & Savile) Welsh stat.  
 nov. (based on: *Saxifraga punctata* ssp. *porsildiana* Calder &  
 Savile Can. Jour. Bot. 38:429. 1960)

*Saxifraga punctata* L. var. *pacifica* (Hultén) Welsh stat. nov. (based  
 on: *Saxifraga punctata* ssp. *pacifica* Hultén Lunds Univ. Arssk.  
 N. F. Avd. 2. 40:928. 1944)

## SCROPHULARICEAE

*Euphrasia arctica* Lange ex Rostrup var. *mollis* (Ledeb.) Welsh  
 comb. nov. (based on: *Euphrasia officinalis* var. *mollis* Ledeb.  
 Fl. Ross. 3:263. 1849)

*Pedicularis sudetica* Willd. var. *pacifica* (Hultén) Welsh stat. nov.  
 (based on: *Pedicularis sudetica* ssp. *pacifica* Hultén Svensk  
 Botanisk Tidskr. 55:203. 1961)

*Veronica wormskjoldii* Roem. & Schult. var. *stelleri* (Pallas) Welsh  
 comb. nov. (based on: *Veronica stelleri* Pallas ex Schrad. & Link  
 Bot. Jahrb. 3:40. 1820)

## REFERENCES

- BARNEBY, R. C. 1952. A revision of the North American species of *Oxytropis*  
 DC. Proc. Cal. Acad. Sci. IV. 27:172-312.
- BEAMISH, K. I. 1955. Studies in the genus *Dodocatheon* of North America.  
 Bull. Torrey Club 82:357-366.
- CALDER, J. A., AND D. B. O. SAVILE. 1960. Studies in Saxifragaceae - III.  
*Saxifraga odontoloma* and *Lyallii*, and North American subspecies of *S.  
 punctata*. Can. Jour. Bot. 38:409-435.
- ENGLER, A., AND E. IRMSCHER. 1916-1918. Saxifragaceae- *Saxifraga* I. II.  
 Pflanzenreich IV. 117(heft 67, 69):1-709.
- FERNALD, M. L., AND K. M. WIEGAND. 1915. The genus *Euphrasia* in North  
 America. Rhodora 17:181-201.
- GILLETT, J. M. 1963. The Gentians of Canada, Alaska, and Greenland. Can.  
 Dept. Agr. Publ. 1180:1-99.

- HALL, H. M., AND F. E. CLEMENTS. 1923. Genus *Artemisia*, pp. 31-156. In: The phylogenetic method in taxonomy. Carn. Inst. Wash. Pub. No. 326.
- HITCHCOCK, C. L. 1941. A revision of the Drabas of western North America. Univ. Wash. Publ. Bio. 11:1-132.
- . 1961. *Epilobium*. pp. 473-485. In: C. L. Hitchcock, *et al.* Vascular Plants of the Pacific Northwest. Univ. Wash. Publ. Bio. 17:1-615.
- HULTÉN, E. 1956. The *Cerasium alpinum* complex. A case of world-wide intragressive hybridization. Svensk Bot. Tidskr. 50:411-495.
- . 1961. The *Pedicularis* species from NW America, *P. albertae* n. sp. and *P. sudetica* sens. lat. Svensk Botanisk Tidskr. 55:193-204.
- KECK, D. D. 1946. A revision of the *Artemisia vulgaris* complex in North America. Proc. Cal. Acad. Sci. IV. 25:421-468.
- MAGUIRE, B. 1943. A monograph of the genus *Arnica*. Brittonia 4:386-510.
- . 1951. Studies in the Caryophyllaceae - V. *arenaria* in North America north of Mexico. A conspectus. Am. Midl. Nat. 46:493-511.
- . 1958. *Arenaria rossii* and some of its relatives in America. Rhodora 60:710.
- MUNZ, P. A. 1965. *Epilobium*. pp. 198-225. In: Onagraceae. N. Am. Fl. II. 5:1-278.
- PENNELL, F. W. 1921. *Veronica* in North and South America. Rhodora 23: 1-22, 29-41.
- PORSILD, A. E. 1950. The genus *Antennaria* in northwestern Canada. Can. Field-Nat. 64:1-25.
- . 1965. The genus *Antennaria* in eastern arctic and subarctic America. Saertryk Bot. Tidsskr. 61:22-55.
- ROLLINS, R. C. 1940. Studies in the genus *Hedysarum* in North America. Rhodora 42: 217-239.
- ROSSBACK, G. B. 1958. The genus *Erysimum* in North America north of Mexico - a key to the species and varieties. Madroño 14:261-267.
- SCHULZ, O. E. 1927. Cruciferae - *Draba* et *Erophila*. Pflanzenreich IV. 105 (heft 89(2)):1-396.
- THOMPSON, H. J. 1953. The biosystematics of *Dodocatheon*. Contr. Dudley Herb. 4:73-154.
- WELSH, S. L. 1967. Legumes of Alaska II: *Oxytropis* DC. Iowa State Jour. Sci. 41:277-303.
- WHERRY, E. E. 1955. The genus *Phlox*. Morris Arboretum Monog. 3:1-174.